Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1. (Currently amended) A processor-implemented method for automatically collecting trace detail data of a program activity in a computer system, comprising:

tracing the program activity at a first trace level to produce the trace detail data;

writing the trace detail data to a trace buffer;

if the first trace level exceeds a first predetermined value continuing to trace the program activity at the first trace level, otherwise writing the trace buffer to a log;

if the first trace level is equal to a second predetermined value, writing the trace buffer to the log; and

if the first trace level does not exceed a third predetermined value, continuing to trace at the first trace level, otherwise writing the trace buffer to the log;

wherein the second predetermined value is a trap value that is used as a trigger to initiate logging of history data for a specific program activity;

wherein the third predetermined value is a history trace level that is used to determine at what level of severity the history data of the trace buffer is caused to be written to a log file;

upon writing the content of the trace buffer to the log, determining

whether the trace buffer is in need of resizing:

upon identifying the need for resizing, resizing the trace buffer; and

upon identifying a lack of need for resizing, resetting the trace buffer.

2. (Canceled)

3. (Currently amended) The method of claim ((2)) 1, wherein the trace buffer is a circular buffer that comprises a configurable number of trace records containing the trace detail data.

4. (Original) The method of claim 3, wherein the first predetermined value is a log level value.

5 - 6. (Canceled)

7. (Currently amended) The method of claim ((6)) 1, wherein the first value, the second value, and the third predetermined value are selectable.

8. (Original) The method of claim 7, wherein the log and the trace buffer reside on different computer systems that communicate over a network.

9. (Currently amended) A <u>processor-implemented</u> system for automatically collecting trace detail data of a program activity in a computer system, comprising:

means for tracing the program activity at a first <u>trace</u> level to produce the trace detail data;

means for writing the trace detail data to a trace buffer;

means for continuing to trace the program activity at the first <u>trace</u> level if the first <u>trace</u> level exceeds a first predetermined value

means for writing the trace buffer to a log if the first <u>trace</u> level does not exceed the first predetermined value;

means for writing the trace buffer to the log if the first <u>trace</u> level is equal to a second predetermined value;

means for continuing to trace at the first <u>trace</u> level if the first <u>trace</u> level does not exceed a third predetermined value; ~~and~~

means for writing the trace buffer to the log if the first <u>trace</u> level exceeds the third predetermined value<u>;</u>

<u>wherein the second predetermined value is a trap value that is used as a trigger to initiate logging of history data for a specific program activity;</u>

<u>wherein the third predetermined value is a history trace level that is used to determine at what level of severity the content of the trace buffer is caused to be written to a log file;</u>

<u>means for determining whether the trace buffer is in need of resizing upon writing the content of the trace buffer to the log;</u>

<u>means for resizing the trace buffer upon identifying the need for resizing; and</u>

<u>means for resetting the trace buffer upon identifying a lack of need</u>

for resizing.

10. (Canceled)

11. (Currently amended) The system of claim 9, ~~wherein the means for writing the trace buffer to the log comprises means for clearing the trace buffer~~ wherein the trace buffer is a circular buffer that comprises a configurable number of trace records containing the trace detail data.

12. (Currently amended) The system of claim ((11)) 9, wherein the trace buffer is includes a circular buffer that comprises a configurable number of trace records containing the trace detail data.

13. (Currently amended) The system of claim ((12)) 9, wherein the first predetermined value is a log level value.

14 - 15. (Canceled)

16. (Currently amended) The system of claim ((15)) 9, wherein the first value, the second value, and the third predetermined value are selectable.

17. (Original) The system of claim 16, wherein the log and the trace buffer reside on different computer systems that communicate over a network.

18. (Currently amended) A computer program product having instruction codes that are ~~embedded~~ stored on a <u>computer-readable</u> medium, for automatically collecting trace detail data of a program activity in a computer system, comprising:

a ~~first~~ set of instruction codes for tracing the program activity at a first <u>trace</u> level to produce the trace detail data;

a ~~second~~ set of instruction codes for writing the trace detail data to a trace buffer;

a ~~third~~ set of instruction codes for continuing to trace the program activity at the first <u>trace</u> level if the first <u>trace</u> level exceeds a first predetermined value

wherein the ~~third~~ set of instruction codes <u>for continuing to trace the program activity</u> writes the trace buffer to a log if the first <u>trace</u> level does not exceed the first predetermined value;

a ~~fourth~~ set of instruction codes for writing the trace buffer to the log if the first <u>trace</u> level is equal to a second predetermined value;

wherein the ~~fourth~~ set of instruction codes <u>for writing the trace buffer to the log</u> continues to trace at the first <u>trace</u> level if the first <u>trace</u> level does not exceed a third predetermined value; ~~and~~

a ~~fifth~~ set of instruction codes for writing the trace buffer to the log if the first <u>trace</u> level exceeds the third predetermined value<u>:</u>

<u>wherein the second predetermined value is a trap value that is used as a trigger to initiate logging of history data for a specific program activity;</u>

<u>wherein the third predetermined value is a history trace level that is used to determine at what level of severity the content of the trace buffer is caused to be written to a log file;</u>

a set of instruction codes for determining whether the trace buffer is in need of resizing upon writing the content of the trace buffer to the log;

a set of instruction codes for resizing the trace buffer upon identifying the need for resizing; and

a set of instruction codes for resetting the trace buffer upon identifying a lack of need for resizing.

19. (Canceled)

20. (Currently amended) The computer program product of claim [[19]] 18, wherein the trace buffer is a circular buffer that comprises a configurable number of trace records containing the trace detail data.

21. (Original) The computer program product of claim 20, wherein the first predetermined value is a log level value.

22 - 23. (Canceled)

24. (Currently amended) The computer program product of claim [[23]] 18, wherein the first value, the second value, and the third predetermined value are selectable.

25. (Original) The computer program product of claim 24, wherein the log and the trace buffer reside on different computer systems that communicate over a network.